

Product datasheet for TR506908

Tardbp Mouse shRNA Plasmid (Locus ID 230908)

Product data:

Product Type: shRNA Plasmids

Product Name: Tardbp Mouse shRNA Plasmid (Locus ID 230908)

Locus ID: 230908

Synonyms: 1190002A23Rik; C85084; TDP-43; Tdp43

Vector: pRS (TR20003)

E. coli Selection: Ampicillin

Mammalian Cell Puromycin

Selection:

Format: Retroviral plasmids

Components: Tardbp - Mouse, 4 unique 29mer shRNA constructs in retroviral untagged vector(Gene ID =

230908). 5µg purified plasmid DNA per construct

29-mer scrambled shRNA cassette in pRS Vector, TR30012, included for free.

RefSeq: <u>BC012873</u>, <u>BC025544</u>, <u>BC027105</u>, <u>BC027772</u>, <u>BC029728</u>, <u>BC031126</u>, <u>BC033475</u>, <u>NM 001003898</u>,

NM 001003899, NM 001008545, NM 001008546, NM 001305425, NM 145556, NR 027864, NR 131120, NR 149751, NM 001003899.1, NM 001003899.2, NM 145556.1, NM 145556.2,

NM 145556.3, NM 145556.4, NM 001003898.1, NM 001003898.2, NM 001003898.3,

NM 001008545.1, NM 001008545.2, NM 001008546.1, NM 001008546.2

UniProt ID: Q921F2

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Summary:

RNA-binding protein that is involved in various steps of RNA biogenesis and processing. Preferentially binds, via its two RNA recognition motifs RRM1 and RRM2, to GU-repeats on RNA molecules predominantly localized within long introns and in the 3' UTR of mRNAs. In turn, regulates the splicing of many non-coding and protein-coding RNAs including proteins involved in neuronal survival, as well as mRNAs that encode proteins relevant for neurodegenerative diseases. Plays a role in maintaining mitochondrial homeostasis by regulating the processing of mitochondrial transcripts. Regulates also mRNA stability by recruiting CNOT7/CAF1 deadenylase on mRNA 3' UTR leading to poly(A) tail deadenylation and thus shortening. In response to oxidative insult, associates with stalled ribosomes localized to stress granules (SGs) and contributes to cell survival. Participates also in the normal skeletal muscle formation and regeneration, forming cytoplasmic myo-granules and binding mRNAs that encode sarcomeric proteins. Plays a role in the maintenance of the circadian clock periodicity via stabilization of the CRY1 and CRY2 proteins in a FBXL3-dependent manner (PubMed:27123980).[UniProtKB/Swiss-Prot Function]

shRNA Design:

Performance Guaranteed: These shRNA constructs were designed against multiple splice variants at this gene locus. To be certain that your variant of interest is targeted, please contact techsupport@origene.com. If you need a special design or shRNA sequence, please utilize our custom shRNA service.

OriGene guarantees that the sequences in the shRNA expression cassettes are verified to correspond to the target gene with 100% identity. One of the four constructs at minimum are guaranteed to produce 70% or more gene expression knock-down provided a minimum transfection efficiency of 80% is achieved. Western Blot data is recommended over qPCR to evaluate the silencing effect of the shRNA constructs 72 hrs post transfection. To properly assess knockdown, the gene expression level from the included scramble control vector must be used in comparison with the target-specific shRNA transfected samples.

For non-conforming shRNA, requests for replacement product must be made within ninety (90) days from the date of delivery of the shRNA kit. To arrange for a free replacement with newly designed constructs, please contact Technical Services at techsupport@origene.com. Please provide your data indicating the transfection efficiency and measurement of gene expression knockdown compared to the scrambled shRNA control (Western Blot data preferred).